

Hazard Control Plan

Title: Environmental, Safety, and Health Evaluations, Inspections, and Sampling

Identifying Number: P-FM-HCP-017-2001.2

Initial Risk Estimate: Medium

Residual Risk Estimate: Low

Work Permits:

Permits may be required for specific facility management units, technical areas, buildings, operations, or other areas, such as ER/D&D sites. These may include, but are not limited to: special electrical work permits (SEWPs), radiation work permits (RWPs), confined space entry permits, and safety work permits. ES&H team members must make themselves aware of any permit requirements before entry into the work area. For ER/D&D, the Site-Specific Health and Safety Plan (SSHASP) must also be followed. In some cases the ES&H team members will be the subject matter experts that determine the need for and/or issue the permits.

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Name/Title

Organization: P-FM

Document Reviewed By: <u>Stephanie Archuleta, FMU 77 ES&H Team Leader</u>	<u>4/19/2001</u>
Name/Title	Date

Work Authorization:

<u>David Riker/ Facility Manager</u>		
Name/Title	Signature	Date

Periodic Review Schedule: Every 3 years or as modification is necessary through feedback or activity change.

Revision Record: Reviewed and revised 2/8/2001, editorial changes only.

Reviewed and revised 3/15/2001, changes include adding minor spill control task and controls for monitoring, measurement and sampling equipment.

SCOPE:

This Hazard Control Plan applies to P-FM ES&H Team personnel performing professional environmental, waste management, industrial hygiene, health physics and safety evaluations, analysis, observations, monitoring, sampling or minor spill control.

DESCRIPTION OF OPERATION:

The P-FM ES&H Team provides general environmental, waste management, radiological, industrial hygiene and safety support for facility and operational activities within assigned areas at Los Alamos National Laboratory. ES&H activities are generally low risk, but when direct observation, sampling, or monitoring is required to evaluate hazards with some unknown parameters, the risk is increased. ES&H Team activities include:

- Hazard analysis for work control or facility safety envelope evaluation
- Safety inspections
- Investigation for occurrence reports
- ES&H support to tenant programs
- Swipe and bulk sampling
- PPE recommendation and approval
- ES&H oversight of subcontractor activities
- Injury/illness investigation and reports
- ES&H support for emergency response
- General radiological evaluations, monitoring & inspections
- Environmental evaluations, inspections, assessments & sampling
- Personal and area air sampling
- Waste characterization using test kits.
- Minor Spill Control

MATERIAL AND EQUIPMENT:

Equipment normally used to perform these functions may include: air monitoring equipment, ventilation equipment, sampling pumps, sampling media, spill kits or spill control equipment, respirators, safety glasses, gloves, coveralls, and safety shoes. Government vehicles may also be used.

LANL AND REGULATORY REQUIREMENTS:

- U.S. Dept of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910 and 1926.
- Current American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV's) and Biological Exposure Indices (BEI's) for Chemical Substances and Physical Agents.
- Chemical Management LIR 402-510-01.0
- 10CFR835 and LANL Radiation Protection LIRs
- LANL Environmental /Public Protection LIRs

FACILITY SPECIFIC REQUIREMENTS:

It is the responsibility of the P-FM ES&H Team to become familiar with the site hazards of the facility prior to entering the area. The employee may require escort by a person who is familiar with the site-specific hazards. It is also required that new P-FM ES&H workers be mentored and oriented before performing work in an area.

EMERGENCY ACTIONS:

P-FM ES&H Team members should be familiar with emergency signals, procedures, and emergency equipment (pull boxes, etc.) for the facility, building, area, or operation. Emergency contacts and numbers should be posted. Personnel should be knowledgeable of muster areas designated for the site being evaluated. Call 911 for immediate crisis/fire/medical assistance. *“In the event of an emergency, remember that your first responsibility is for your own safety. Do not try to perform any shutdown procedures if it would compromise your safety.”*

WASTE HANDLING PROCEDURES:

Dispose of detector tubes, sampling equipment and PPE in accordance with P-FM-HCP-005-00.0 Waste Management Activities and RCRA Hazardous Waste Storage & Disposal Requirements as applicable.

WORK ACTIVITIES/HAZARDS/CONTROLS:

Activity	Hazard	Control
Inspections, Investigations, Evaluations, Audits and Assessments, Oversight functions	Exposure to contaminants	<ul style="list-style-type: none"> • Properly functioning engineering controls (i.e. ventilation systems, enclosures) • Knowledge of processes, check in with area supervisor for information on site-specific information • Attention to the work environment, obey all signs & postings • Appropriate PPE, as required for access to specific work areas.
Personal and area air sampling	Inhalation of airborne contaminants	<ul style="list-style-type: none"> • Properly functioning engineering controls (i.e. ventilation systems, enclosures) • Administrative controls which dictate work practices that minimize airborne exposures. Appropriate PPE, including respirators when necessary, based on professional judgement, and/or current regulatory requirements • Obey all signs & postings • Ensure sampling equipment is in good working condition (e.g. calibrated, no damaged cords, etc.)
Swipe and bulk sampling	Contaminants entering body through skin puncture or open wound	<ul style="list-style-type: none"> • PPE (appropriate for the hazard) • Minimize contact with areas or surfaces which have known high contaminant concentrations • Protect any openings in the skin
Sampling near equipment	Rotating parts or energized systems	<ul style="list-style-type: none"> • LOTO system prior to sampling if necessary.
Water Sampling from Facility Equipment	Exposure to contaminants	<ul style="list-style-type: none"> • Knowledge of System to be sampled • Appropriate PPE • Sampling requirements/procedures of analytical lab
Coordinate & Assist ESH-19 waste characterization/sampling activities	Exposure to Contaminants	<ul style="list-style-type: none"> • IH and Rad Review of area/material • Follow ESH-19 sampling procedures • Appropriate PPE, determined by an Industrial Hygienist if necessary

Waste characterization test kits	Exposure to Contaminants	<ul style="list-style-type: none"> • Appropriate PPE • Follow test kit procedures • Ensure sampling equipment is in good condition. • Dispose of Sampling Equipment appropriately
Minor Spill Control	Exposure to Contaminants	<ul style="list-style-type: none"> • Isolate unknown material without contact. • Appropriate PPE must be worn • Use spill control equipment appropriate for material • Ensure spill equipment is in good condition. • Do not attempt clean-up of unknown material. • Contact EM&R for Major Spills or spills of unknown material.

KNOWLEDGE, SKILLS AND ABILITIES NECESSARY TO UTILIZE TIME CONTROLS AND PERFORM THE WORK SAFELY:

P-FM ES&H Team personnel authorized to perform work under this HCP shall meet the qualification requirements for their professional ES&H field. Because of the unknown nature of each situation encountered, a general knowledge of industrial hygiene, safety, and radiation protection principles is necessary to perform this work safely. ES&H workers must be able to anticipate, recognize, and control for hazards associated with work areas they may have to enter to perform their duties.

FORMAL AND ON-THE-JOB TRAINING:

Program	Formal Training	OJT Training
ES&H Team Members	<ul style="list-style-type: none"> • Formal education or professional certification or equivalent training and experience in an ES&H related field, and as required for specific contaminants or tasks. • Tenant operations may establish training requirements for visitors or workers to their work areas. P-FM staff must meet those requirements for unescorted access into the applicable areas. Hazard Communication. This live course is available from the ES&H Training Group (ESH-13), White Rock Training Center. Hazard Communication is given during General Employee Training 	As required for specific contaminants, activities, or PPE requirements.

	(GET) and whenever new hazards are introduced.	
Confined Space Evaluations	<ul style="list-style-type: none"> • Qualified ES&H Team member • Confined Space Awareness Training 	Familiarity with operations within the facility.
Radioactive Material sampling or handling, or other ES&H activities within Radiation Controlled Areas.	<ul style="list-style-type: none"> • LANL Rad Worker II training. 	As required for specific contaminants/tasks/locations.

Work Acknowledgement:

I have read and understand this Hazard Control Plan:

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